ABSTRACT OF DISCLOSURE

A method and an apparatus for cutting a non-metallic substrate by a laser are disclosed. In the disclosed method and apparatus, a first laser beam for breaking molecular bonds of the non-metallic substrate material is scanned on a cutting path formed on the non-metallic substrate to form a scribe line having a crack in desired depth. Then, a second laser beam is scanned along a scanning path of the first laser beam to propagate the crack in a depth direction of the substrate and to completely separate the non-metallic substrate. Since the cutting speed can be controlled by the speed of the first laser beam, the cutting speed can be increased and the cutting speed can be easily controlled as compared with the conventional cutting method using the temperature difference due to the heating operation and the cooling operation.